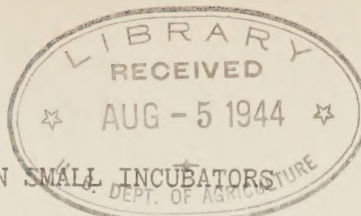


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A HUMIDIFIER USED IN SMALL INCUBATORS

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The humidifier herein described has given satisfactory service in small incubators where certain constant-temperature and relative humidity tests have been made with eggs, larvae, and adults of various insects incidental to research on the European corn borer.

The humidifying chamber proper consists of a nonrusting metal box, 6 by 6 by 18 inches (fig. 2, A), with a removable top (B). An air inlet (C) is provided in the upper half of one end of the box and an air outlet (D) about 1 inch in diameter in the upper half of the opposite end. The air channel in the box is chevroned with side baffles constructed of strips of ordinary blotting paper (E) sewed with fine copper wire to stiff nonrusting wire frames (F). The baffling is held upright by small brass bolts attached to the sides of the box. A supply of water (distilled to prevent deposits accumulating on the baffles) is maintained in the box at a level just below the end openings. The absorption rate of the blotting paper is sufficiently rapid to keep a constant supply of moisture available on the baffles.

The air circulator is an electric "whisk broom" (G) with the broom portion and part of the handle or blower sawed off, controlled by a hygrostat. That portion of the blower retained is inserted through the air inlet (C) of the box.

In operation the pump draws air from the incubator, forces it through the air channel, where it absorbs moisture from the baffles, and returns it to the incubator.

A humidifier of this type has been found to maintain relative humidities up to 96 percent, with differentials not exceeding 2 percent, within comparatively small chambers (15 to 30 cubic feet) when controlled by a hair hygrostat, as described by Baker and Arbuthnot (Baker, W. A., and Arbuthnot, K. D. An Incubator Room. Jour. Econ. Ent. 24: 444-449, illus. 1931).

Explanation of Illustrations

Figure 1.--Humidifier as in operation.

Figure 2.--Humidifier with top removed, showing parts.

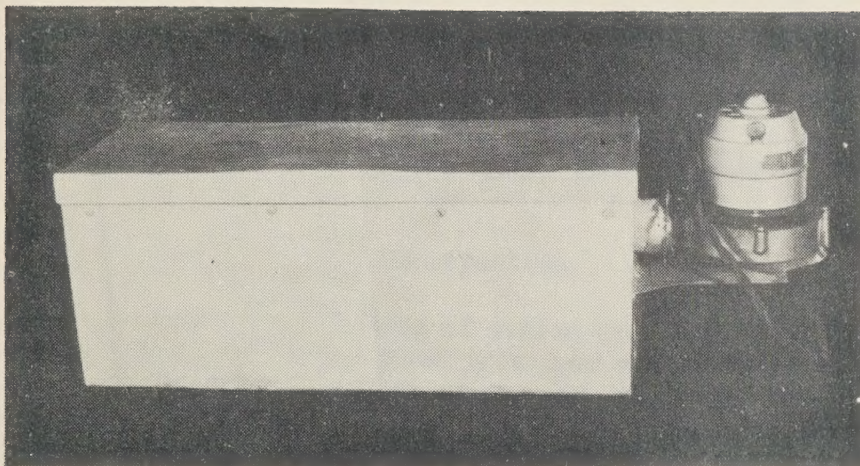


Figure 1. - Humidifier as in operation.

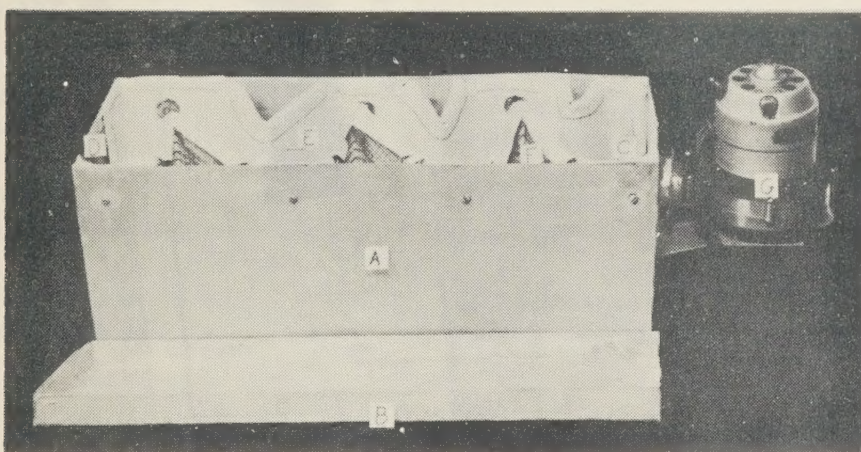


Figure 2. - Humidifier with top removed, showing parts.

